

1 ABSTRACT OF THE DISCLOSURE
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3 A method for safely handling unstable hydrides in an enclosure which contains a
4 hydride and has one or more openings, by partitioning the enclosure into smaller but
5 interconnected volumes and providing heat storage and transfer within the enclosure to
6 rapidly remove heat from any incipient hot spot before it can reach a temperature
7 where it could rapidly propagate to the rest of the enclosure. The minimum
8 temperature used to size the partitions is the thermal decomposition temperature for
9 unstable gases which can decompose without oxidation such as hydrazine, silane and
10 germane. A preferred embodiment includes where the partitioning material comprises
11 part or all of the means to store the heat and has a large surface area to rapidly adsorb
12 heat from the gases in the smaller volume. An even more preferred embodiment is
13 where the partitioning material comprises materials that can be poured into the
14 enclosure. The use of sensible heat, phase change or chemical reactions is feasible
15 ways to store the heat. The materials chosen for the partitioning means and the heat
16 sink are substantially free from adsorbing the gas contained in the enclosure.

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